

Supplemental Table 1: Infrascanner diagnostic performance for subgroups

Subgroup	Sensitivity	Specificity	Negative Predictive Value	Positive Predictive Value
Overall	81% (13/16) 54%, 96%	68% (209/308) 63%, 73%	99% (221/224) 96%, 100%	11% (13/120) 6%, 18%
Age				
Quartile 1 (0 to 4.97 Years)	100% (5/5) 48%, 100%	68% (50/74) 56%, 78%	100% (55/55) 94%, 100%	16% (5/31) 5%, 34%
Quartile 2 (4.98 to 9.53 Years)	50% (1/2) 1%, 99%	67% (54/81) 55%, 77%	98% (57/58) 91%, 100%	4% (1/28) 0%, 18%
Quartile 3 (9.54 to 13.77 Years)	71% (5/7) 29%, 96%	75% (55/73) 64%, 85%	97% (56/58) 88%, 100%	18% (5/28) 6%, 37%
Quartile 4 (> 13.77 Years)	100% (2/2) 16%, 100%	63% (50/80) 51%, 73%	100% (53/53) 93%, 100%	6% (2/33) 1%, 20%
p-value	0.34	0.39	0.32	0.20
Race				
Asian	-	53% (9/17) 28%, 77%	100% (10/10) 69%, 100%	-
Black /African American	100% (2/2) 16%, 100%	70% (81/115) 61%, 79%	100% (81/81) 96%, 100%	5% (2/39) 1%, 17%
White	89% (8/9) 52%, 100%	66% (97/146) 58%, 74%	99% (105/106) 95%, 100%	13% (8/62) 6%, 24%
Other	100% (3/3) 29%, 100%	72% (18/25) 51%, 88%	100% (20/20) 83%, 100%	30% (3/10) 7%, 65%
p-value	0.74	0.49	0.79	0.10
Skin Color				
Black/Olive/Brown	67% (4/6) 22%, 96%	67% (114/171) 59%, 74%	98% (116/118) 94%, 100%	6% (4/65) 2%, 15%
Light/White	90% (9/10) 56%, 100%	69% (95/137) 61%, 77%	99% (105/106) 95%, 100%	16% (9/55) 8%, 29%
p-value	0.25	0.62	0.63	0.07
Hair Color				
Black/Brown	77% (10/13) 46%, 95%	67% (148/221) 60%, 73%	98% (151/154) 94%, 100%	11% (10/88) 6%, 20%
Blond/Red/Scant	100% (2/2) 16%, 100%	70% (61/87) 59%, 79%	100.0% (70/70) 95%, 100%	6% (2/31) 1%, 21%
p-value	0.45	0.59	0.24	0.43
Site				
Children's Hospital of Philadelphia	86% (6/7) 42%, 100%	70% (121/173) 63%, 77%	99% (125/126) 96%, 100%	10% (6/60) 4%, 21%
Boston Children's Hospital	75% (3/4) 19%, 99%	66% (37/56) 52%, 78%	98% (41/42) 87%, 100%	13% (3/24) 3%, 32%
Children's Hospital Colorado	80% (4/5) 28%, 99%	65% (51/79) 53%, 75%	98% (55/56) 90%, 100%	11% (4/36) 3%, 26%
p-value	0.91	0.66	0.70	0.94

Subgroup	Sensitivity	Specificity	Negative Predictive Value	Positive Predictive Value
Number of Lobes Measured				
3	78% (7/9) 40%, 97%	69% (90/130) 61%, 77%	98% (95/97) 93%, 100%	13% (7/52) 6%, 26%
4	86% (6/7) 42%, 100%	67% (119/178) 59%, 74%	99% (126/127) 96%, 100%	9% (6/68) 3%, 18%
p-value	0.69	0.66	0.41	0.42
Device Mode				
Independent	85% (11/13) 55%, 98%	71% (145/205) 64%, 77%	99% (155/157) 95%, 100%	14% (11/76) 7%, 24%
Guided	67% (2/3) 9%, 99%	62% (64/103) 52%, 72%	99% (66/67) 92%, 100%	5% (2/44) 1%, 15%
Chi-Square p-value	0.47	0.13	0.90	0.09
Hematoma Location				
Epidural	67% (6/9) 30%, 93%	-	-	-
Subdural	100% (4/4) 40%, 100%	-	-	-
Intracerebral	100% (3/3) 29%, 100%	-	-	-
p-value	0.24	-	-	-
Hematoma volume				
>3.5-13.0 mL	88% (7/8) 47%, 100%	-	-	-
>13.0 mL	75% (6/8) 35%, 97%	-	-	-
p-value	0.52	-	-	-
Scalp Hematoma				
Yes	80% (4/5) 28%, 99%	66% (60/91) 55%, 76%	99% (68/69) 92%, 100%	11% (4/38) 3%, 25%
No	82% (9/11) 48%, 98%	69% (149/217) 62%, 75%	99% (153/155) 95%, 100%	11% (9/82) 5%, 20%
p-value	0.93	0.64	0.92	0.94

Results presented as proportion (numerator/denominator), lower, upper 95% confidence interval. Sensitivity, negative predictive value, and positive predictive value are based on evaluable intracranial hematomas within the detection limit of the device. Specificity is based on absence of any hematoma regardless of depth and size to prevent penalizing successful detection of smaller and deeper hematomas. A two-sided p-value from a chi-square test comparing the estimates between subgroups is reported. Only sensitivity is reported for hematoma location and volume, since these factors are not applicable to patients without hematomas.